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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,256	04/09/2001	Jeffrey Dinkel	DINK1	7582

6980 7590 11/13/2003

TROUTMAN SANDERS LLP  
BANK OF AMERICA PLAZA, SUITE 5200  
600 PEACHTREE STREET, NE  
ATLANTA, GA 30308-2216

EXAMINER
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TRAN A, PHI DIEU N

ART UNIT	PAPER NUMBER
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3637

DATE MAILED: 11/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/829,256

Applicant(s)

DINKEL, JEFFREY

Examiner

Phi D A

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 36-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 36-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/5/03 has been entered.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 8, 13-16, 18, 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (01/0000738) in view of Moore et al (3672951) and Dinkel(3284980).

Mathieu (figure 9) discloses a construction element having a core (10) having an upper principal surface and a lower principal surface, alkaline resistance fiber to be used with a Portland cement, having additive of expanded shale (col 10 line 3 third paragraph), a pervious upper reinforcement material on the upper principal surface of the core, a cement slurry binding the reinforcement layer on the upper surface of the core, an upper coating/cement slurry in communication with the upper principal surface of the core and the pervious upper reinforcement material, the layer comprising a fiberglass mesh with an alkaline resistant coating selected from the group consisting of woven fiberglass and fiberglass skim.

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Mathieu does not show the core having alkaline resistance fiber, and an impervious membrane remaining on the lower principle surface of the core after the manufacture of the element, and the membrane being high tensile strength.

Moore et al discloses an impervious membrane (16) remaining on the lower principle surface of the core (19) after the manufacture of the element to act as a water vapor barrier (col 2 lines 35-40).

Dinkel discloses fiber in the core to reinforce the core.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu to show the core having alkaline resistance fiber, and an impervious membrane on the lower principle surface of the core after the manufacture of the element because fiber would reinforce and strengthen the core as taught by Dinkel, and having an impervious membrane on the lower principle surface of the core after the manufacture of the element would provide a water vapor barrier to the construction element as taught by Moore et al

2. Claims 2, 7, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (0000738) in view of Moore et al (3672951) and Dinkel(3284980).

Mathieu as modified shows all the claimed limitations except for the fiber being chopped reinforcement fibers randomly dispersed in the core.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu's modified structure to show the fiber being chopped reinforcement fibers randomly dispersed in the core because using chopped fibers randomly distributed on a core to reinforce a core is well-known in the art as it provides high strength to the core while maintaining low distribution cost.

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3. Claims 36-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (0000738) in view of Moore et al (3672951) and Dinkel(3284980).

Mathieu as modified by Dinkel shows all the claimed limitations except for the membrane being a reinforced polymer membrane, spunbonded olefin, alkaline resistant dense polymer fiber mat, Tyvek, or the membrane having waterproof paperboard.

Moore et al further discloses the membrane being built of alternating layers of asphalt or bitumen and paper.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu's modified structure to show the membrane being a reinforced polymer membrane, spunbonded olefin, alkaline resistant dense polymer fiber mat, Tyvek, or the membrane having waterproof paperboard because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

4. Claims 3-6, 9-12, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (0000738) in view of Moore et al (3672951) and Dinkel(3284980).

Mathieu as modified shows all the claimed limitations except for the membrane being a reinforced polymer membrane, spunbonded olefin, alkaline resistant dense polymer fiber mat, or the membrane having waterproof paperboard.

Moore et al further discloses the membrane being built of alternating layers of asphalt or bitumen and paper.

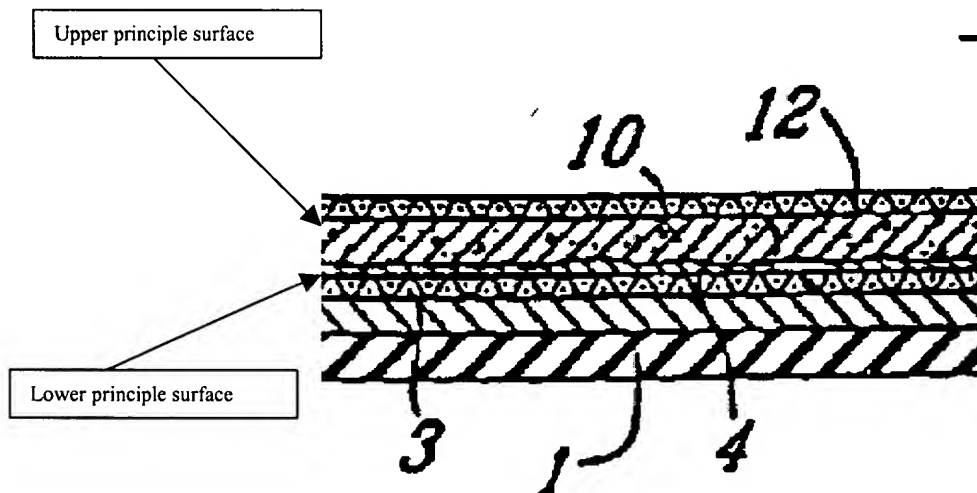
It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu's modified structure to show the membrane being a reinforced

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polymer membrane, spunbonded olefin, alkaline resistant dense polymer fiber mat, or the membrane having waterproof paperboard because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

5. Claims 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (0000738) in view of Moore et al (3672951) and Dinkel(3284980).

Mathieu (figure 9) discloses an asymmetrical construction element (see below) having a core (10) having an upper principal surface and a lower principal surface, the element being asymmetrical in design such that a layer or layers on the upper principle surface differ in arrangement from the layer or layers on the lower principle surface (inherently so as the lower surface include the slurry cement layer), the upper principle and the lower principle surface of the core having different moisture-resistant layers respectively (inherently per the slurry cement layer), the different moisture resistant layers having different moisture resistant properties.



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Mathieu does not show an impervious membrane remaining on the lower principle surface of the core after the manufacture of the element, and the membrane being high tensile strength.

Moore et al discloses an impervious membrane (16) remaining on the lower principle surface of the core (19) after the manufacture of the element to act as a water vapor barrier (col 2 lines 35-40).

Dinkel discloses fiber in the core to reinforce the core.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu to show the core having alkaline resistance fiber, and an impervious membrane remaining on the lower principle surface of the core after the manufacture of the element, and the membrane being high tensile strength because fiber would reinforce and strengthen the core as taught by Dinkel, and having an impervious membrane on the lower principle surface of the core after the manufacture of the element would provide a water vapor barrier to the construction element as taught by Moore et al.

6. Claims 48-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (0000738) in view of Moore et al (3672951) and Dinkel(3284980).

Mathieu (figure 9) discloses an asymmetrical construction element (see figure 9 above) having a core (10) having an upper principal surface and a lower principal surface, a pervious upper reinforcement material (12) on the upper principal surface of the core, an upper coating/cement slurry in communication with the upper principal surface of the core, the construction being asymmetrical in design such that a layer or layers on the upper principle surface differ in arrangement from the layer or layers on the lower principle surface (inherently

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so as the lower surface include the slurry cement layer), alkaline resistance fiber to be used with a Portland cement.

Mathieu does not show an impervious membrane remaining on the lower principle surface of the core after the manufacture of the element, and the membrane being high tensile strength.

Moore et al discloses an impervious membrane (16) remaining on the lower principle surface of the core (19) after the manufacture of the element to act as a water vapor barrier (col 2 lines 35-40).

Dinkel discloses fiber in the core to reinforce the core.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu to show the core having alkaline resistance fiber, and an impervious membrane remaining on the lower principle surface of the core after the manufacture of the element, and the membrane being high tensile strength because fiber would reinforce and strengthen the core as taught by Dinkel, and having an impervious membrane on the lower principle surface of the core after the manufacture of the element would provide a water vapor barrier to the construction element as taught by Moore et al.

7. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (0000738) in view of Moore et al (3672951) and Dinkel(3284980).

Mathieu as modified shows all the claimed limitations except for the fiber being chopped reinforcement fibers randomly dispersed in the core.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu's modified structure to show the fiber being chopped reinforcement



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fibers randomly dispersed in the core because using chopped fibers randomly distributed on a core to reinforce a core is well-known in the art as it provides high strength to the core while maintaining low distribution cost.

8. Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu (0000738) in view of Moore et al (3672951) and Dinkel(3284980).

Mathieu as modified shows all the claimed limitations except for the membrane being a reinforced polymer membrane.

Moore et al further discloses the membrane being built of alternating layers of asphalt or bitumen and paper.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Mathieu's modified structure to show the membrane being a reinforced polymer membrane because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 1-19,36-51 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art shows layered panels.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phi D A whose telephone number is 703-306-9136. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on 703-308-2486. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.



Phi Dieu Tran A  
November 6, 2003